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California Air Resources Board (ARB)
Suggested Control Measure for Architectural Coatings

RULE _____ ARCHITECTURAL COATINGS

1. APPLICABILITY

1.1 Except as provided in subsection 1.2, the provisions of this rule are applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures any architectural coating for use within the District.

1.2 The provisions of this rule do not apply to any architectural coating described in subsections 1.2.1 through 1.2.3:

1.2.1 A coating that is manufactured for use outside of the District or for shipment to other manufacturers for repackaging.

1.2.2 A coating that is an aerosol product.

1.2.3 A coating that is sold in a container with a volume of one liter or less.

2. DEFINITIONS

2.0 Adhesive: Any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

2.1 Aerosol Product: A pressurized spray system that dispenses product ingredients by means of a propellant or mechanically induced force. "Aerosol Product" does not include pump sprays.

2.2 Appurtenance: Any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

2.3 Architectural Coating: A coating recommended for application to stationary structures and their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-

stationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are not considered architectural coatings for the purposes of this rule.

2.4 Bituminous Coating: A coating formulated and recommended for roofing, pavement sealing, or waterproofing that incorporates bitumens. Bitumens are black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.

2.5 Bond Breaker: A coating formulated and recommended for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.

2.6 Clear Wood Coatings: Clear and semi-transparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film.

2.7 Coating: A material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains.

2.8 Colorant: A concentrated pigment dispersion in water, solvent, and/or binder that is added to an architectural coating in a paint store or at the site of application to produce the desired color.

2.9 Concrete Curing Compound: A coating formulated and recommended for application to freshly poured concrete to retard the evaporation of water.

2.10 Dry Fog Coating: A coating formulated and recommended only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

2.11 Exempt Solvent: A compound identified as exempt under the definition of Volatile Organic Compounds (VOC), subsection 2.43.

2.12 Fire-Retardant Coating: A coating formulated and recommended to have a flame spread index of less than 25 when tested in accordance with American Society for Testing and Materials (ASTM) Designation E-84-87, “Standard Test Method for Surface Burning Characteristics of Building Material,” after application to Douglas fir according to the manufacturer’s recommendations (incorporated by reference--see section 5).

2.13 Flat Coating: A coating that is not defined under any other definition in this rule and that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter according to ASTM Designation D 523-89, Standard Test Method for Specular Gloss (incorporated by reference--see section 5.).

2.14 Floor Coating: An opaque coating that is formulated and recommended for application to flooring including, but not limited to, decks, porches, and steps, for the purposes of abrasion resistance.

2.15 Form-Release Compound: A coating formulated and recommended for application to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.

2.16 Graphic Arts Coating or Sign Paint: A coating formulated and recommended for hand-application by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals including lettering enamels, poster colors, copy blockers, and bulletin enamels.

2.17 High-Temperature Coating: A high performance coating formulated, recommended, and used for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).

2.18 Industrial Maintenance Coating: A high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats, formulated and recommended for application to substrates exposed to one or more of the following extreme environmental conditions listed in subsections 2.18.1 through 2.18.5 in an industrial, commercial, or institutional setting :

2.18.1 Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation;

2.18.2 Acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;

2.18.3 Repeated exposure to temperatures above 121°C (250°F);

2.18.4 Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or

2.18.5 Exterior exposure of metal structures and structural components.

2.19 Lacquer: A clear or opaque wood coating, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film. Lacquer stains are considered stains, not lacquers.

2.20 Low Solids Coating: A coating containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material and for which at least half of the volatile component is water.

2.21 Magnesite Cement Coating: A coating formulated and recommended for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

2.22 Mastic Texture Coating: A coating formulated and recommended to cover holes and minor

cracks and to conceal surface irregularities, and is applied in a single coat of at least 10 mils (0.010 inch) dry film thickness.

2.23 Metallic Pigmented Coating: A coating containing at least 48 grams of elemental metallic pigment per liter of coating as applied (0.4 pounds per gallon), excluding zinc.

2.24 Multi-Color Coating: A coating that is packaged in a single container and exhibits more than one color when applied.

2.25 Nonflat Coating: A coating that is not defined under any other definition in this rule and that registers a gloss of 15 or greater on an 85-degree meter or 5 or greater on a 60-degree meter according to ASTM Designation D 523-89, Standard Test Method for Specular Gloss (incorporated by reference--see section 5.).

2.26 Pre-treatment Wash Primer: A primer that contains a minimum of 0.5 percent acid, by weight, that is formulated and recommended for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

2.27 Primer: A coating formulated and recommended for application to a substrate to provide a firm bond between the substrate and subsequent coats.

2.28 Quick-Dry Enamel: A nonflat coating that has the following characteristics:

2.28.1 Is capable of being applied directly from the container under normal conditions with ambient temperatures between 16 and 27°C (60 and 80°F);

2.28.2 When tested in accordance with ASTM Designation D 1640-83 (Reapproved 1989), Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature (incorporated by reference--see section 5.), sets to touch in 2 hours or less, is tack free in 4 hours or less, and dries hard in 8 hours or less by the mechanical test method; and

2.28.3 Has a dried film gloss of 70 or above on a 60 degree meter.

2.29 Residential Use: Use in areas where people reside or lodge including, but not limited to, single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels.

2.30 Roof Coating: A coating formulated and recommended for application to exterior roofs for the primary purpose of preventing penetration of the substrate by water or reflecting heat and reflecting ultraviolet radiation. Metallic pigmented roof coatings which qualify as metallic pigmented coatings shall not be considered to be in this category, but shall be considered to be in the metallic pigmented coatings category.

2.31 Rust Preventative Coating: A coating formulated and recommended for use in preventing the corrosion of ferrous metal surfaces in residential situations.

2.32 Sanding Sealer: A clear wood coating formulated and recommended for application to bare

wood to seal the wood and to provide a coat that can be sanded to create a smooth surface. A sanding sealer that also meets the definition of a lacquer is not included in this category, but is included in the lacquer category.

2.33 Sealer: A coating formulated and recommended for application to a substrate for one or more of the following purposes: to prevent subsequent coatings from being absorbed by the substrate; to prevent harm to subsequent coatings by materials in the substrate; to block stains, odors, or efflorescence; to seal fire, smoke, or water damage; or to condition chalky surfaces.

2.34 Shellac: A clear or opaque coating formulated with natural resins (except nitrocellulose resins) soluble in alcohol (including, but not limited to, the resinous secretions of the lac beetle, Laciffer lacca). Shellacs dry by evaporation without chemical reaction and provide a quick-drying, solid protective film that may be used for blocking stains.

2.35 Solicit: To require for use or to specify, by written or oral contract.

2.36 Shop Application: A coating is applied to a product or a component of a product in a factory or shop as part of a manufacturing, production, or repairing process (e.g., original equipment manufacturing coatings).

2.37 Stain: A coating formulated to change the color of a surface but not conceal the surface. This includes lacquer stains.

2.38 Swimming Pool Coating: A coating formulated and recommended to coat the interior of swimming pools and to resist swimming pool chemicals.

2.39 Tint Base: A coating to which colorant is added in a paint store or at the site of application to produce a desired color.

2.40 Traffic Marking Coating: A coating formulated and recommended for marking and striping streets, highways, or other traffic surfaces including, but not limited to, curbs, berms, driveways, parking lots, sidewalks, and airport runways.

2.41 Undercoater: A coating formulated and recommended to provide a smooth surface for subsequent coatings.

2.42 Varnish: A clear or semi-transparent coating, excluding lacquers and shellacs, formulated and recommended to provide a durable, solid, protective film. Varnishes may contain small amounts of pigment to color a surface, or to control the final sheen or gloss of the finish.

2.43 Volatile Organic Compound (VOC): Any compound of carbon, which may be emitted to the atmosphere during the application of and or subsequent drying or curing of coatings subject to this rule, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic

carbides or carbonates, and ammonium carbonate, and excluding the following:

2.43.1 methane;
methylene chloride (dichloromethane);
1,1,1-trichloroethane (methyl chloroform);
trichlorofluoromethane (CFC-11);
dichlorodifluoromethane (CFC-12);
1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114);
chloropentafluoroethane (CFC-115);
chlorodifluoromethane (HCFC-22);
1,1,1-trifluoro-2,2-dichloroethane (HCFC-123);
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124);
1,1-dichloro-1-fluoroethane (HCFC-141b);
1-chloro-1,1-difluoroethane (HCFC-142b);
trifluoromethane (HFC-23);
pentafluoroethane (HFC-125);
1,1,2,2-tetrafluoroethane (HFC-134);
1,1,1,2-tetrafluoroethane (HFC-134a);
1,1,1-trifluoroethane (HFC-143a);
1,1-difluoroethane (HFC-152a);
cyclic, branched, or linear completely methylated siloxanes;
the following classes of perfluorocarbons:

(A) cyclic, branched, or linear, completely fluorinated alkanes;

(B) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;

(C) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and

(D) sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds only to carbon and fluorine; and

2.43.2 the following low-reactive organic componds which have been exempted by the U.S. EPA:

acetone;
ethane; and
parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene).

2.44 VOC Content: The weight of VOC per volume of coating, calculated according to the procedures in subsection 5.1.

2.45 Waterproofing Wood Sealer: A coating formulated and recommended for application to a wood substrate for the primary purpose of preventing the penetration of water.

2.46 Waterproofing Concrete/Masonry Sealer: A clear or pigmented coating that is formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, and staining.

2.47 Wood Preservative: A coating formulated and recommended to protect wood from decay

or insect attack, and which contains a wood preservative chemical that is registered with the United States Environmental Protection Agency (U.S. EPA) under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code (U.S.C.) Section 136, *et seq.*) and that is registered with the California Department of Pesticide Regulation.

3. STANDARDS

3.1 **VOC Content Limits:** Except as provided in subsections 3.2 and 3.3, no person shall, within the District, supply, offer for sale, sell, apply, or solicit the application of any architectural coating listed in Table 1 which contains VOC (less water and exempt solvents, and excluding any colorant added to tint bases) in excess of the corresponding limit specified in the table, after the corresponding date specified, or manufacture, blend, or repackage such a coating for use within the District.

3.2 **Most Restrictive VOC Limit:** If anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Table 1, then the most restrictive VOC content limit shall apply. This provision does not apply to subsections 3.2.1 through 3.2.6:

3.2.1 Lacquer sanding sealers are subject only to the VOC content limit in Table 1 for lacquers.

3.2.2 Metallic pigmented coatings that meet the definition of or are recommended for use as roof coatings, industrial maintenance coatings, or primers are subject only to the VOC content limit in Table 1 for metallic pigmented coatings.

3.2.3 Shellacs that meet the definition of or are recommended for use as any other architectural coating are subject only to the VOC content limit in Table 1 for shellacs.

3.2.4 Pre-treatment wash primers that meet the definition of or are recommended for use as primers or that meet the definition for industrial maintenance coatings are subject only to the VOC content limit in Table 1 for pre-treatment wash primers.

3.2.5 Industrial maintenance coatings that meet the definition of or are recommended for use as primers, sealers, undercoaters, or mastic texture coatings are subject only to the VOC content limit in Table 1 for industrial maintenance coatings.

3.2.6 High temperature coatings that meet the definition of or are recommended for use as industrial maintenance coatings are subject only to the VOC content limit in Table 1 for high temperature coatings.

3.3 **Sell-Through Provision:** Sale of a coating manufactured prior to the effective date of the corresponding standard in Table 1, and not complying with that standard, shall not constitute a violation of subsection 3.1 until three years after the effective date of the standard, nor shall application of such a coating.

3.4 **Painting Practices:** All architectural coating containers used to apply the contents therein to a surface direct from said container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but should not be limited to, drums, buckets, cans, pails, trays or other application containers. Containers of VOC-containing materials for thinning and cleanup shall also be closed when not in use. "Not in use" includes, but is not limited to, interruption, delay, completion of transfer of said contents, or termination of said application.

3.5 **Thinning:** Any person who applies or solicits the application of any architectural coating within the District shall follow the manufacturer's recommendation regarding thinning of the coating under normal environmental and application conditions as described in subsection 4.1.2. This recommendation shall not apply to the thinning of architectural coatings with water. No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit in Table 1.

3.6 **Industrial Maintenance Coatings:** Any person who applies or solicits the application of any architectural coating within the District shall follow the manufacturer's recommendation regarding industrial maintenance coatings as described in subsection 4.1.5. No person who applies or solicits the application of any architectural coating shall apply an industrial maintenance coating in or on a residence as defined in subsection 2.29 or in or on areas of industrial, commercial, or institutional facilities not exposed to the extreme environmental conditions identified in subsection 2.18, such as office space and meeting rooms.

3.7 **Coatings Not Listed in Table 1:** For any coating that cannot be classified as a category listed in Table 1, the VOC limit shall be determined by classifying the coating as a flat coating or a nonflat coating, based on its gloss, as defined in subsections 2.13 and 2.25, and the corresponding flat or nonflat VOC limit shall apply.

4. CONTAINER LABELING REQUIREMENTS

4.1 Each manufacturer of any architectural coating subject to the provisions of this subsection shall provide the information listed in subsections 4.1.1 through 4.1.5 on the coating container in which the coating is sold or distributed.

4.1.1 **Date Code:** The date the coating was manufactured, or a date code representing the date shall be indicated on the label, lid, or bottom of the container. Each manufacturer of such coatings shall file with the Air Pollution Control Officer and the Executive Officer of the California Air Resources Board (ARB), an

explanation of each code.

4.1.2 **Thinning Recommendations:** A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.

4.1.3 **VOC Content:** Each container of any coating subject to this rule shall display the maximum VOC content of the coating, as applied, and after any thinning as recommended by the manufacturer. VOC content shall be displayed in grams of VOC per liter of coating (less water and exempt solvent, and excluding any colorant added to tint bases). VOC content displayed shall be calculated using product formulation data, or shall be determined using the test methods in subsection 5.2. The equations in subsection 5.1 shall be used to calculate VOC content.

4.1.4 **Coating Category Designation:** Each container of any coating subject to this rule shall display on the label or lid of the container the applicable coating category with which the coating is required to comply, as listed in Table 1. Alternatively, this information shall be displayed on a product data sheet for the coating.

4.1.5 **Industrial Maintenance Coatings:** In addition to the information specified in subsection 4.1, each manufacturer of any industrial maintenance coating subject to the provisions of this subsection shall display on the label or lid of the container in which the coating is sold or distributed one or more of the descriptions listed in subsections 4.1.5.1 through 4.1.5.4.

4.1.5.1 "For industrial use only."

4.1.5.2 "For professional use only."

4.1.5.3 "Not for residential use" or "Not intended for residential use."

4.1.5.4 "This coating is intended for use under the following condition(s):" (Include each condition in subsections 4.1.5.4.1 through 4.1.5.4.5 that applies to the coating.)

- 4.1.5.4.1 Immersion in water, wastewater, or chemical solutions (aqueous and nonaqueous solutions), or chronic exposure of interior surfaces to moisture condensation;
- 4.1.5.4.2 Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;
- 4.1.5.4.3 Repeated exposure to temperatures above 121°C (250°F);
- 4.1.5.4.4 Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent)

scrubbing with industrial solvents, cleaners, or scouring agents; or

4.1.5.4.5 Exterior exposure of metal structures and structural components.

5. COMPLIANCE PROVISIONS AND TEST METHODS

5.1 **Calculation of VOC Content:** For the purpose of determining compliance with the VOC content limits in Table 1, the VOC content of a coating shall be determined by using the procedures described in subsection 5.1.1 or 5.1.2, as appropriate. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured.

5.1.1 With the exception of low solids coatings, determine the VOC content in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water and exempt compounds. Calculate the VOC content using equation 1 as follows:

$$\text{VOC Content} = \frac{(W_s - W_w - W_{ec})}{(V_m - V_w - V_{ec})} \qquad \textbf{(1)}$$

Where:

VOC content	=	grams of VOC per liter of coating
W_s	=	weight of volatiles, in grams
W_w	=	weight of water, in grams
W_{ec}	=	weight of exempt compounds, in grams
V_m	=	volume of coating, in liters
V_w	=	volume of water, in liters
V_{ec}	=	volume of exempt compounds, in liters

5.1.2 For low solids coatings, determine the VOC content in units of grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any water and exempt compounds. Calculate the VOC content using equation 2 as follows:

$$\text{VOC Content}_{ls} = \frac{(W_s - W_w - W_{ec})}{(V_m)} \qquad \textbf{(2)}$$

Where:

VOC content$_{ls}$	=	the VOC content of a low solids coating in grams of VOC per liter of coating
W_s	=	weight of volatiles, in grams
W_w	=	weight of water, in grams

W_{ec}	=	weight of exempt compounds, in grams
V_m	=	volume of coating, in liters

5.2 **VOC Content of Coatings:** To determine the composition of a coating in order to perform the calculations in subsection 5.1, the reference method for VOC content is Method 24 of appendix A of 40 Code of Federal Regulations (CFR) part 60, Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings, except as provided in subsections 5.3, 5.4, and 5.5. An alternative method to determine the VOC content of coatings is South Coast Air Quality Management District (SCAQMD) Method 304, incorporated by reference in subsection 5.5.10. The exempt compounds content shall be determined by SCAQMD Method 303, incorporated by reference in subsection 5.5.9. To determine the VOC content of a coating, the manufacturer may use Method 24 of Appendix A of 40 CFR part 60, or an alternative method as provided in subsection 5.3, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except when an alternative method is approved by the ARB and the U.S. EPA as an alternative to Method 24. The District Air Pollution Control Officer (APCO) may require the manufacturer to conduct a Method 24 analysis.

5.3 **Alternative Test Methods:** Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with subsection 5.2, after review by the staffs of the District, the ARB, and the U.S. EPA, and approved in writing by the District APCO, may also be used.

5.4 **Methacrylate Traffic Marking Coatings:** Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to the procedures specified in 40 CFR part 59, subpart D, appendix A, Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings. This method is a modification of Method 24 of appendix A of 40 CFR part 60, and it has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.

5.5 **Methods Incorporated by Reference:** The materials listed in this subsection are incorporated by reference in the subsections noted.

5.5.1 **Flame Spread Index:** American Society for Testing and Materials (ASTM) Designation E 84-91A, Standard Test Method for Surface Burning Characteristics of Building Material, incorporation by reference approved for section 2., Fire Retardant Coating.

5.5.2 **Gloss Determination:** ASTM Designation D 523-89, Standard Test Method for Specular Gloss, incorporation by reference approved for section 2., Flat Coating, Nonflat Coating, and Quick-Dry Enamel.

5.5.3 **Low Solids Coatings:** Bay Area Air Quality Management District (BAAQMD) Method 31, Determination of Volatile Organic Compounds in Paint Strippers, Solvent Cleaners, and Low Solids Coatings, BAAQMD Manual of Procedures, Volume III, amended 4/15/92, incorporation by reference approved for section 2., Low Solids Coating.

5.5.4 **Metal Content of Coatings:** SCAQMD Method 311-91, Determination of Percent Metal in Metallic Coatings by Spectrographic Method, incorporation by reference approved for section 2., Metallic Pigmented Coating.

5.5.5 **Acid Content of Coatings:** ASTM Designation D 1613-85, Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products, incorporation by reference approved for section 2., Pre-treatment Wash Primer.

5.5.6 **Drying Times:** ASTM Designation D 1640-83 (Reapproved 1989), Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature, incorporation by reference approved for section 2., Quick-Dry Enamel.

5.5.7 **Exempt Compounds--Siloxanes:** BAAQMD Method 43, Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials, BAAQMD Manual of Procedures, Volume III, adopted 11/6/96, incorporation by reference approved for section 2., Volatile Organic Compound.

5.5.8 **Exempt Compounds--Parachlorobenzotrifluoride (PCBTF)**: BAAQMD Method 41, Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride, BAAQMD Manual of Procedures, Volume III, adopted 12/20/95, incorporation by reference approved for section 2., Volatile Organic Compound.

5.5.9 **Exempt Compounds:** SCAQMD Method 303-91, Determination of Exempt Compounds, SCAQMD "Laboratory Methods of Analysis for Enforcement Samples," incorporation by reference approved for section 2., Volatile Organic Compound and subsection 5.2.

5.5.10 **Alternative VOC Content of Coatings:** SCAQMD Method 304-91, Determination of Volatile Organic Compounds (VOC) in Various Materials, SCAQMD "Laboratory Methods of Analysis for Enforcement Samples," incorporation by reference approved for subsection 5.2.

Table 1
VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS

Limits are expressed in grams of VOC per liter[a] of coating as applied,
excluding the volume of any water, exempt compounds, or colorant added to tint bases.

Coating Category	Effective Dates					
	Current Limit	7/1/2001	7/1/2002	1/1/2005	7/1/2006	7/1/2008
Flat Coatings	250[b]	100[c]				50[c]
Nonflat Coatings	250[b]		150[c]		50[c]	
Specialty Coatings						
Bituminous Coatings	250[b]	50				
Bond Breakers	350					
Clear Wood Coatings • Lacquers (including lacquer sanding sealers) • Sanding Sealers (other than lacquer sanding sealers) • Varnishes	 680 350 350	550		275[c]		
Concrete Curing Compounds	350					
Dry Fog Coatings	400					
Fire-Retardant Coatings: • Clear • Pigmented	 650 350	250				
Floor Coatings	400[d]		100[c]		50[c]	
Form-Release Compounds	250					
Graphic Arts Coatings (Sign Paints)	500	150				
High Temperature Coatings	420					
Industrial Maintenance Coatings	340		250[c]		100[c]	
Low Solids Coatings	120[d]	120[e]				
Magnesite Cement Coatings	450					
Mastic Texture Coatings	300	250				
Metallic Pigmented Coatings	500					
Multi-Color Coatings	420	250				

Coating Category	Effective Dates					
	Current Limit	**7/1/2001**	**7/1/2002**	**1/1/2005**	**7/1/2006**	**7/1/2008**
Pre-treatment Wash Primers	420	250				
Primers, Sealers, and Undercoaters	350		200[c]		100[c]	
Quick-Dry Enamels	400[f]		250[c]		50[c]	
Roof Coatings	250[d]	50				
Rust Preventative Coatings	400[d]		250[c]		100[c]	
Shellacs: • Clear • Opaque	 730 550	 650				
Stains: • Clear and semi-transparent • Opaque	 350 350		 250[c] 150[c]			
Swimming Pool Coatings	340					
Traffic Marking Coatings	150[d]					
Waterproofing Sealers: • Concrete • Wood	400	 400 400	 250[c]			
Wood Preservatives	350					

[a] Conversion factor: one pound VOC per gallon (U.S.) = 119.82 grams VOC per liter.
[b] Current SCM default limit.
[c] These limits are subject to revision based on the outcome of scheduled SCAQMD technology assessments.
[d] National rule limit as of September 18, 1999.
[e] Units are grams of VOC per liter (pounds of VOC per gallon) of coating, including water and exempt compounds.
[f] Most common current district limit.

Compliance Advisory

Reference Table for Determining Analogous National Rule[a] and SCM [b] Categories

If your coating meets the National Rule[a] definition below...	**the following Suggested Control Measure[b] category and VOC limit applies.**
Antenna coatings Anti-fouling coatings Anti-graffiti coatings Chalkboard resurfacers Extreme high durability coatings Flow coatings Heat reactive coatings Impacted immersion coatings Nonferrous ornamental metal lacquers and surface protectants Nuclear coatings Repair and maintenance thermoplastic coatings Thermoplastic rubber coatings and mastics	Industrial maintenance coatings
Calcimine Recoaters	Flat or Nonflat coatings (depending on gloss)
Concrete curing and sealing compounds Concrete surface retarders	Concrete curing compounds
Concrete protective coatings	Waterproofing sealers
Conversion varnishes Faux finishing/glazing	Varnishes
Quick-dry primers, sealers, and undercoaters coatings Stain controllers Sealers (including interior clear wood sealers)	Primers, sealers, and undercoaters
Low solids stains Low solids wood preservatives	Low solids coatings
Zone marking coatings	Traffic marking coatings

[a] *National Volatile Organic Compound Emission Standards for Architectural Coatings* (40 CFR part 59, subpart D)
[b] 1999 *Air Resources Board Suggested Control Measure for Architectural Coatings*